

METHOD AND APPARATUS FOR TRANSFERRING A DOCUMENT INTO A FOLDER

FIELD

[0001] The present invention relates to transferring a document into a folder. More specifically, the present invention relates to methods and apparatus for transferring a document into a folder associated with an identified portion of the document.

BACKGROUND

[0002] A user of an electronic mail (e-mail) service, who receives and sends numerous e-mails daily, often desires to save the e-mails into relevant mailbox folders. The user often creates such mailboxes and then causes each e-mail to be transferred into a relevant mailbox, a process that slows down the user. There is a need, therefore, for mechanisms to efficiently transfer e-mail documents into relevant mailbox folders.

SUMMARY

[0003] The disclosed embodiments provide novel and improved methods and apparatus for transferring a document into a folder. In one aspect, a method for transferring a document into a folder includes identifying a portion of the document and transferring the document into a folder associated with the identified portion.

[0004] In one aspect, an apparatus for transferring a document into a folder includes an input device capable of receiving information, a memory unit capable of storing information, and a processor communicatively coupled with the input unit and the memory unit. The processor is capable of carrying out the above-mentioned methods.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] The features and advantages of the present invention will become more apparent from the detailed description of disclosed embodiments set forth below when taken in conjunction with the drawings, and wherein:

[0006] FIG. 1 illustrates an e-mail document with a highlighted word therein;

[0007] FIG. 2 illustrates a message indicating that the e-mail document of FIG. 1 is being transferred into a folder associated with the highlighted word in FIG. 1;

- [0008] FIG. 3 illustrates the e-mail document of FIG. 1 having been transferred into the folder associated with the highlighted word in FIG. 1;
- [0009] FIG. 4 illustrates the e-mail document of FIG. 1 with a second highlighted word therein;
- [0010] FIG. 5 illustrates the e-mail document of FIG. 1 having been transferred into the folder associated with the first highlighted word in FIG. 1 and the folder associated with the second highlighted word in FIG. 4;
- [0011] FIG. 6 is a high-level diagram of a computer system including a plurality of client devices connected to a plurality of independently-operated server devices via a network, which computer system is suitable for implementing various disclosed embodiments; and
- [0012] FIG. 7 is a high-level diagram of a representative one of the client devices illustrated in FIG. 6.

DETAILED DESCRIPTION

- [0013] Before several embodiments are explained in detail, it is to be understood that the scope of the invention should not be limited to the details of the construction and the arrangement of the components set forth in the following description or illustrated in the drawings. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting.
- [0014] FIG. 1 illustrates a user interface **100** corresponding to an e-mail program operating within a personal computer system, personal digital assistant (PDA), a wireless phone, and the like. The user interface **100** shows an e-mail document **102** corresponding to the e-mail **104** received in the inbox mailbox. User interface **100** also shows a mailbox tree **106**, illustrating the existing mailboxes. One such mailbox is "SpamWatch" mailbox **108** created for saving e-mail document(s) associated with Spam Watch. User interface **100** also shows the window **112** showing the content of mailbox folder "SpamWatch" **108**.
- [0015] A user of the e-mail program, who has received or sent an e-mail and is viewing the corresponding e-mail document or text, may wish to save the e-mail into a folder. According to one embodiment, the user may identify a portion, such as a word, a symbol, or the like, within the e-mail document and cause the e-mail document to be transferred into a folder associated with the identified portion within the document. The

user may identify the portion within the document by highlighting, clicking on, speaking, or touching the portion. For example, the user highlights the word “SpamWatch” **110** within e-mail document **102**, as shown in FIG. 1, and clicks on the highlighted word **110** to be transferred to “SpamWatch” mailbox **108**.

[0016] FIG. 2 illustrates a message **200**, indicating that e-mail **204** is being transferred into the pre-existing mailbox “SpamWatch” **208** associated with the highlighted word “SpamWatch” **210**. If none of the existing mailboxes in the mailbox tree **206** associate with a highlighted word, a new mailbox may be created, as will be discussed below.

[0017] FIG. 3 illustrates an indication that that the e-mail **304** has been transferred, as e-mail **312**, into mailbox folder “SpamWatch” **308**. The content of “SpamWatch” mailbox **308** may be shown in window **314**, showing e-mail **312** transferred therein.

[0018] The user may identify more than one portion of the same document and cause the same document to be transferred into more than one mailbox associated with respective identified portions. For example, as shown in FIG. 4, the user highlights the second word “IMAP” **410** within the e-mail document **402**, and clicks on the second highlighted word **410** to transfer e-mail **404** into a folder associated with the second highlighted word **410**. However, in this case, no folder associated with the second highlighted word **410** exists, as none is shown in mailbox tree **406**. FIG. 4 illustrates a message **418**, indicating that the e-mail **404** is being transferred into the to-be-created mailbox “IMAP” associated with the highlighted word **410**. The new mailbox “IMAP” may be created based on the highlighted word, e.g., “IMAP.”

[0019] FIG. 5 illustrates an indication that that the e-mail **504** has been transferred into the newly created mailbox folder “IMAP” **520**, as e-mail **524**, associated with the second highlighted word. , The content of “IMAP” mailbox **520** may be shown in window **526**, showing e-mail **524** transferred therein. In one embodiment, FIG. 5 also illustrates an indication that the same e-mail **504** had been previously transferred into mailbox folder “SpamWatch” **508** associated with the first highlighted word. The content of “SpamWatch” mailbox **508** may be shown in window **514**, showing e-mail **522** transferred therein.

[0020] FIG. 6 illustrates system configuration **600** that is suitable for carrying out the functions according to the disclosed embodiments. Although the disclosed embodiments are generally described with respect to an electronic mail (e-mail) system where a number of users can create, send, receive and read e-mail messages, the

disclosed embodiments are not so limited. For example, the disclosed embodiments are equally applicable to a personal digital assistant (PDA) incorporating specialized software for receiving stock quotations via a wireless network. Thus, the principles of the disclosed embodiments should not be regarded as limited solely to e-mail systems; the principles of the disclosed embodiments apply to on-line services where a provider, e.g., a software provider, desires to make its software available to users.

[0021] As shown in FIG. 6, the system **600** includes a plurality of client computers **602A**, **602B**, **602C**. Each of the client computers generally denoted **602** can be either a workstation or a personal computer executing a client program. In one embodiment, the client computers **602A** – **602C** advantageously can be connected to a plurality of servers **604A** – **604D**, via a network **606**, e.g., the Internet. Alternatively, the network **606** may be one of a local area network (LAN), a wide area network (WAN), an Intranet, or a wireless network, or some combination thereof. It will be appreciated that FIG. 6 illustrates a non-limiting exemplary system; and number of clients can be connected to any number of servers.

[0022] FIG. 7 illustrates in further detail the hardware configuration of an exemplary one of the client computers **602A** – **602C** illustrated in FIG. 6. In one embodiment, the client computer **602A** includes a central processing unit **702** for executing computer programs (including the client program according to one embodiment) and managing and controlling the operation of the client computer **602A**. A storage device **704**, such as a floppy disk drive, is coupled to the central processing unit **702** for, e.g., reading and writing data and computer programs to and from removable storage media such as floppy disks. Storage device **706**, coupled to the central processing unit **702**, also provides a mechanism for storing computer programs and data. Storage device **706** includes a hard disk having a high storage capacity. A dynamic memory device **708** such as a RAM, is also coupled to the central processing unit **702**. It will be noted that storage devices **704** and **706**, as well as dynamic memory device **708**, are non-limiting examples of a memory unit. The client computer **602A** includes input/output devices, such as, for example, a keyboard **710**, a mouse **712**, a monitor **714**, and a communications device **716**. It will be appreciated that the communications device advantageously can be a modem, an ethernet interface card, etc.

[0023] Therefore, the disclosed embodiments provide for an efficient mechanism for transferring a document in to a folder based identifying a portion of the document and

causing the document to directly transfer to the folder associated with the identified portion.

[0024] Those of skill in the art would understand that information and signals may be represented using any of a variety of different technologies and protocols. For example, data, instructions, commands, information, signals, bits, symbols, and chips that may be referenced throughout the above description may be represented by voltages, currents, electromagnetic waves, magnetic fields or particles, optical fields or particles, or any combination thereof.

[0025] Those of skill would further appreciate that the various illustrative logical blocks, modules, circuits, and algorithm steps described in connection with the embodiments disclosed herein may be implemented as electronic hardware, computer software, or combinations of both. To clearly illustrate this interchangeability of hardware and software, various illustrative components, blocks, modules, circuits, and steps have been described above generally in terms of their functionality. Whether such functionality is implemented as hardware or software depends upon the particular application and design constraints imposed on the overall system. Skilled artisans may implement the described functionality in varying ways for each particular application, but such implementation decisions should not be interpreted as causing a departure from the scope of the present invention.

[0026] The various illustrative logical blocks, modules, and circuits described in connection with the embodiments disclosed herein may be implemented or performed with a general purpose processor, a digital signal processor (DSP), an application specific integrated circuit (ASIC), a field programmable gate array (FPGA) or other programmable logic device, discrete gate or transistor logic, discrete hardware components, or any combination thereof designed to perform the functions described herein. A general-purpose processor may be a microprocessor, but, in the alternative, the processor may be any conventional processor, controller, microcontroller, or state machine. A processor may also be implemented as a combination of computing devices, e.g., a combination of a DSP and a microprocessor, a plurality of microprocessors, one or more microprocessors in conjunction with a DSP core, or any other such configuration.

[0027] The steps of a method or algorithm described in connection with the embodiments disclosed herein may be embodied directly in hardware, in a software

module executed by a processor, or in a combination of the two. A software module may reside in RAM memory, flash memory, ROM memory, EPROM memory, EEPROM memory, registers, a hard disk, a removable disk, a CD-ROM, or any other form of storage medium known in the art. An exemplary storage medium is coupled to the processor, such that the processor can read information from, and write information to, the storage medium. In the alternative, the storage medium may be integral to the processor. The processor and the storage medium may reside in an ASIC. The ASIC may reside in a user terminal. In the alternative, the processor and the storage medium may reside as discrete components in a user terminal.

[0028] The description of the disclosed embodiments is provided to enable any person skilled in the art to make or use the present invention. Various modifications to these embodiments may be readily apparent to those skilled in the art, and the generic principles defined herein may be applied to other embodiments, e.g., in an instant messaging service or any general wireless data communication applications, without departing from the spirit or scope of the invention. Thus, the present invention is not intended to be limited to the embodiments shown herein but is to be accorded the widest scope consistent with the principles and novel features disclosed herein. The word “exemplary” is used exclusively herein to mean “serving as an example, instance, or illustration.”